

**REMARKS**

Claims 1-20 are pending in the application. Claims 1, 2, 4-6, 10, 11-13, 15, 18, and 20 have been amended herein. New claims 21-26 have been added. Favorable reconsideration of the application, as amended, is respectfully requested.

In general, the applicant's invention is directed to a joint compound sanding device for use with a porous joint compound sanding screen. The applicant's invention includes a bottom plate 66. The bottom plate 66 includes a plurality of dust collection apertures 74 extending between a vacuum manifold formed above the bottom plate and a bottom surface 76 of the bottom plate. In addition to the dust collection apertures 74 extending through the bottom plate 66, the bottom plate includes a plurality of dust collection channels 80 and mesas 78. The mesas 78 support the sanding screen 54 and the channels 80 form a duct behind the sanding screen 54 for the flow of air and dust towards one of the dust collection apertures 74. (P7, L28 to P8, L16). Two exemplary patterns for formation of the channels 80 and mesas 78 in the bottom surface 76 of the bottom plate 66 are shown in applicants Figures 3a and 3b.

***I. REJECTION OF CLAIMS UNDER 35 USC § 102***

Claims 1, 3, 10, and 12 stand rejected under 35 USC 102(b) based on being anticipated by US Patent 6,454,640 to Siedler et al. Claims 1 and 10 stand rejected under 35 USC 102(b) based on being anticipated by US Patent 6,447,383 to Oda et al.

**Claim 1**

Claim 1 is directed to a joint compound sanding device. The joint compound sanding device comprises a hand held housing, a bottom plate, a dust collection fan, and a motor.

The bottom plate includes both: i) a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom

surface of the bottom plate; and ii) a plurality of dust collection channels formed in the bottom surface of the bottom plate. The channels define mesas there between and the mesas support the porous joint compound sanding screen.

The dust collection fan includes a fan inlet is jointed to the vacuum manifold and the motor (coupled to the hand held housing) includes a rotating shaft coupled to the dust collection fan for rotating the fan and drawing air: i) through the porous joint sanding compound, ii) through the channels, and iii) through the apertures into the vacuum manifold.

Siedler et al. teaches suction holes 544 through the sanding plate 150 and that the suction holes 544 align with congruent suction holes of a sanding sheet. (C3, L51-54). Siedler does not teach or suggest forming channels and mesas in the bottom surface of the bottom plate. In fact, the Siedler et al. teaching of aligning suction holes of a sanding sheet with the suction holes 544 through the sanding plate 150 is a teaching away from a device that uses a sanding screen (which by the nature of being a screen is generally porous rather than including distinct suction holes) and includes channels behind the screen which so that air can be drawn: i) through the porous joint sanding compound, ii) through the channels, and iii) through the apertures into the vacuum manifold.

Oda et al. shows, but does not discuss, a plurality of apertures (unlabeled) through the foot assembly. Oda et al. does not teach a vacuum manifold nor drawing air through the apertures. However, even if that was the purposes, Oda et al. still fails to teach or suggest forming channels and mesas in the bottom surface of the bottom plate. Again, the teaching of only apertures through the foot assembly is a failure to teach or suggest a device that uses a sanding screen (which by the nature of being a screen is generally porous rather than including distinct suction holes) and includes channels behind the screen which so that air can be drawn: i) through the porous joint sanding compound, ii) through the channels, and iii) through the apertures into the vacuum manifold.

Although not cited by the examiner, US Patent 4,779,285 to Reiter deserves discussion. Reiter discloses an un-powered sanding device for use with a sheet of

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sanding paper. Reiter teaches a paddle with holes through a planar base and raised pedestals for supporting the a sheet of sandpaper such that negative pressure is formed around the periphery of the paddle. Air and dust particles are drawn in around the periphery of the paddle.

#### **Claim 10**

Claim 10, as amended, is directed to a joint compound sanding device. The joint compound sanding device comprises a hand held housing, a bottom plate, a manifold, and means for moving the bottom plate with respect to the housing.

As discussed with claim 1, the bottom plate includes both: i) a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate; and ii) a plurality of dust collection channels formed in the bottom surface of the bottom plate. The channels define mesas there between and the mesas support the porous joint compound sanding screen.

The hand held housing comprises a vacuum port for coupling the joint compound sanding device to an external suction source.

The manifold couples the vacuum manifold to the vacuum port such that air is drawn: i) through the porous joint compound sanding screen, ii) through the channels, and iii) through the apertures into the vacuum manifold.

As discussed with respect to claim 1, neither Siedler et al. nor Oda et al. teach or suggest forming channels and mesas in the bottom surface of the bottom plate and teach away from such a concept by nature of teaching the alignment of suction holes of a sanding sheet with the suction holes 544 through the sanding plate 150 is a teaching away from a device that uses a sanding screen (which by the nature of being a screen is generally porous rather than including distinct suction holes) and includes channels behind the screen which so that air can be drawn: i ) through the porous joint sanding compound, ii) through the channels, and iii) through the apertures into the vacuum manifold.

### **Claims 3 and 12**

Claims 3 and 12 each depend from one of independent claims 1 and 10 are therefore can be distinguished over Siedler et al., Oda et al. and the other art of record for the same reasons. Further, the additional elements and or steps recited in such claims further distinguish such claims over Chamberlain et al. and the other art of record.

### **II. REJECTION OF CLAIMS UNDER 35 USC § 103**

Claims 2, 4, 5, 11, 13, and 18-19 stand rejected under 35 USC 103(a) based on being unpatentable over 6,454,640 to Siedler et al. in view of 4,527,360 to Dicke.

Each of claims 2, 4, 5, 11, and 13 depend from one of independent claims 1 and 10 are therefore can be distinguished over Siedler et al. for at least the same reasons as discussed above. Further, the teachings of Dicke do not overcome failure of Siedler et al. to teach the elements of claims 1 and 10.

More specifically, Siedler et al. and Dicke, in combination, still fail to teach forming channels and mesas in the bottom surface of the bottom plate, and by nature of teaching the alignment of suction holes of a sanding sheet with the suction holes 544 through the sanding plate 150) is a teaching away from a device that uses a sanding screen (which by the nature of being a screen is generally porous rather than including distinct suction holes) and includes channels behind the screen which so that air can be drawn: i) through the porous joint sanding compound, ii) through the channels, and iii) through the apertures into the vacuum manifold.

### **Claim 18**

Claim 18 is directed to a method of sanding hardened joint compound. The method comprises securing a porous joint compound sanding screen to a bottom plate. The bottom plate comprises: i) a plurality of dust collection apertures extending through the bottom plate between the vacuum manifold and a bottom

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surface of the bottom plate; and ii) a plurality of dust collection channels formed in the bottom surface defining mesas there between, the mesas for supporting a porous joint compound sanding screen.

The method further comprises moving the bottom plate with respect to a hand held housing to create a sanding action and forming a vacuum within a vacuum manifold above the bottom plate to draw air and dust through the porous joint compound sanding screen, through the channels, through the dust collection apertures and into the vacuum manifold.

As discussed with respect to claims 1 and 10, Siedler et al. and Dicke, in combination, still fail to teach forming channels and mesas in the bottom surface of the bottom plate, and by nature of teaching the alignment of suction holes of a sanding sheet with the suction holes through the sanding plate, teach away from a device that uses a sanding screen (which by the nature of being a screen is a porous mesh rather than including distinct suction holes) with channels behind the screen so that air can be drawn: i ) through the porous joint sanding screen, ii) through the channels, and iii) through the apertures into the vacuum manifold.

### **Claims 19-20**

Each of claims 19 and 20 depend from one of independent claim 18 and therefore can be distinguished over Siedler et al. and Dicke for at least the same reasons as discussed above.

### **III. New Claims**

The new claims 21-26 each depend from one of the independent claims 1, 10, or 18 are therefore distinguishable over the art of record for at least the same reasons as discussed with respect to such independent claims. The additional features of the new claims further define the applicants invention.

### **IV. Allowable Subject Matter**

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The examiner cited claims 6-9 and 15-17 as having allowable subject matter. Accordingly claims 6 and 15 have been written in independent form including all of the limits of the base claim and the intervening claims. Claims 7-9 and 16-17 are dependent upon claims 6 and 15 and therefore (based on the amendments to claims 6 and 16) include all of the limitations of the base claim and the intervening claims.


### **III. CONCLUSION**

Accordingly, claims 1-26 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 501825.

Respectfully submitted,

  
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Timothy P. O'Hagan  
Reg. No. 39,319

DATE: 10-19-04

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Timothy P. O'Hagan  
8710 kilkenny Ct  
Fort Myers, FL 33912  
(239) 561-2300



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Annotated sheet

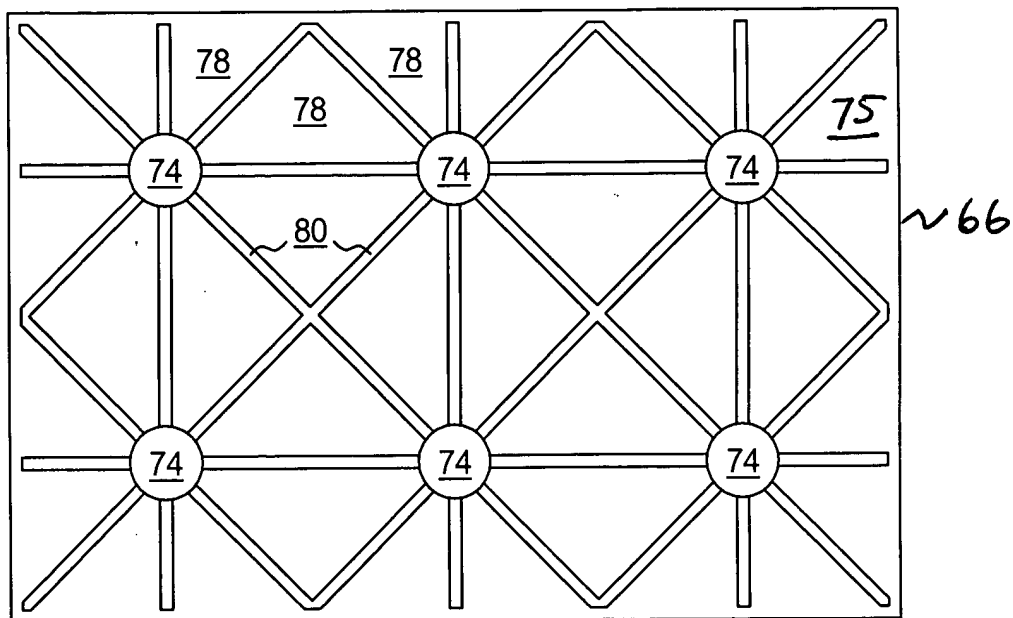


Figure 3a

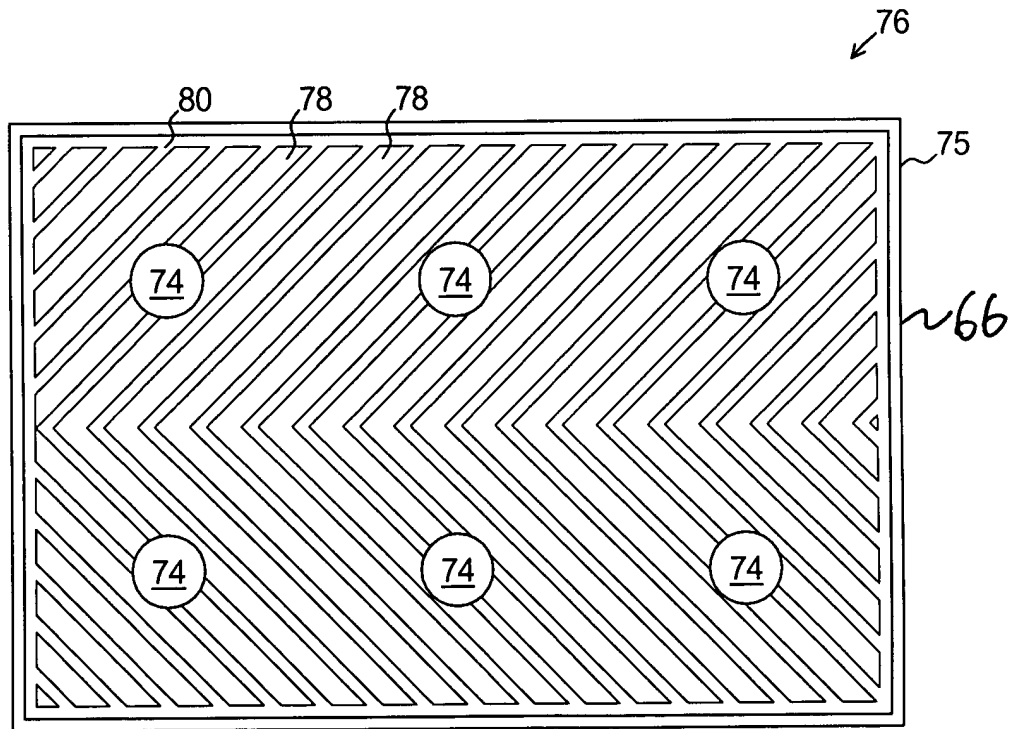


Figure 3b

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**AMENDMENTS TO THE DRAWINGS**

The attached sheet of drawings includes changes to Figure 3a and to Figure 3b.  
This sheet replaces the original sheet including Figure 3a and Figure 3b.

Both of Figure 3a and Figure 3b omitted reference numerals to elements represented in the figures.

Attachment:            Replacement Sheet

                             Annotated Sheet Showing Changes